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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,173	11/05/2003	William Blanc	7942-000010	7531

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EXAMINER

LAZORCIK, JASON L

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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10/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/702,173

Applicant(s)

BLANC, WILLIAM

Examiner

Jason L. Lazorcik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants amendment filed July 31, 2007 includes the new limitation to claim 1 which requires in part that each pair of the plurality of support brackets extends inwardly toward "but not contacting" the other said pair of longitudinally extending tubular members. The Examiner has been able to find substantially no evidence to support a limitation which explicitly excludes the support brackets from contacting the other member of the pair of longitudinally extending tubular members.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

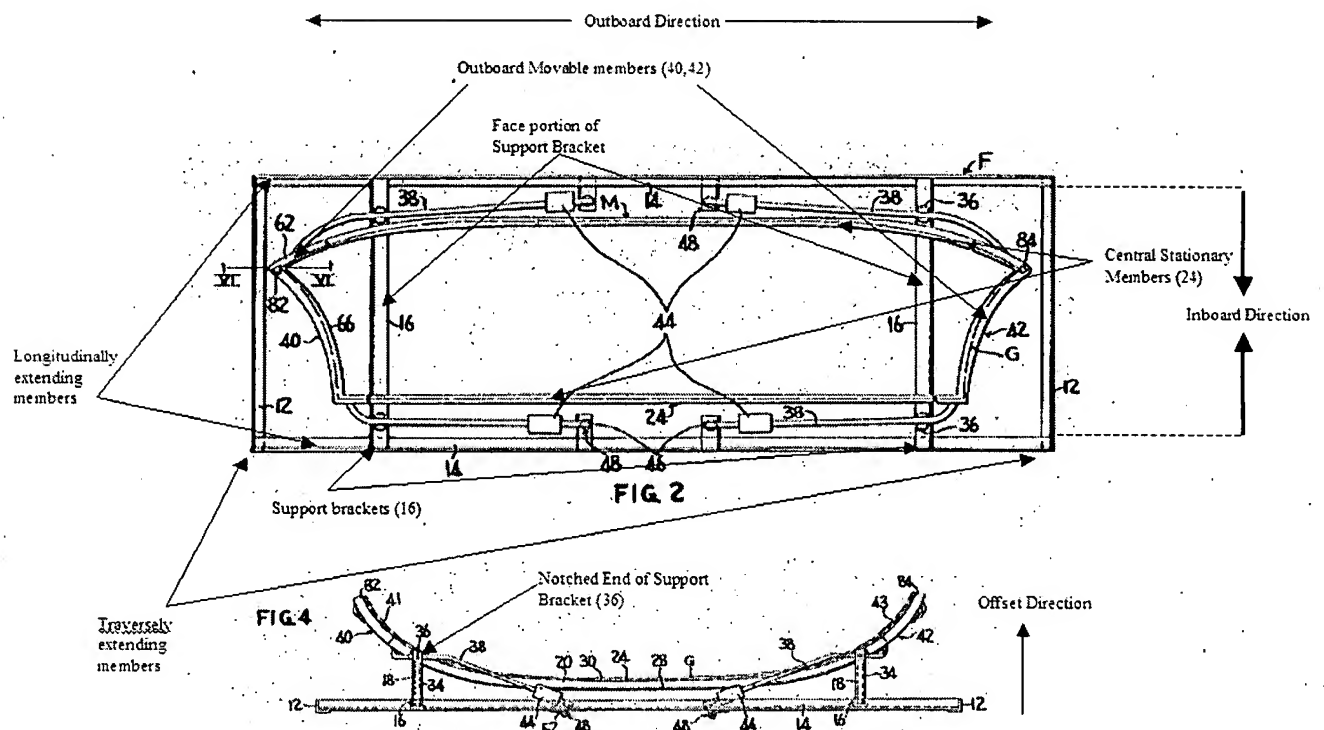
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 and 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Garbin (US 3,265,489) in view of Reese (US 4,375,978) and in further view of Calevro (US 4,077,792).

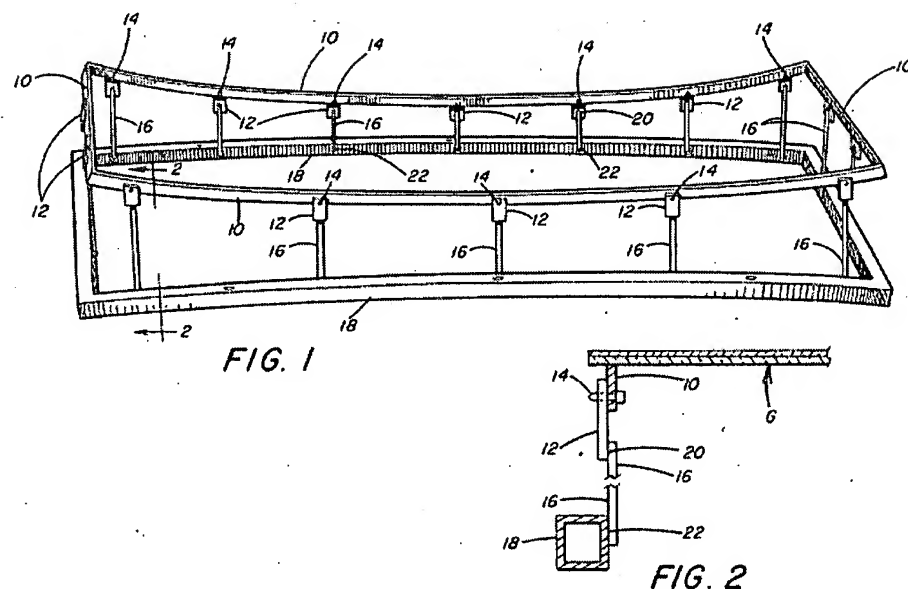
With particular respect to the following annotated excerpt Figures 2 and 4, Garbin teaches a bending ring for supporting a glass sheet during heating. The disclosed apparatus provides longitudinally (12) and transversely extending (14) members "fixedly coupled" together to form a rectangular assembly. A plurality of support brackets (read elements 16 and 36) present a face portion (16) positioned adjacent and in contact with a first side of the longitudinally extending member and in contact with a second side of said longitudinal member. These support brackets extend inwardly towards the other longitudinally extending member and further provide a "notched end" (36) on an extending portion. A pair of stationary members (24) are fixedly coupled to the longitudinally extending members (14) via the support brackets (16,36), whereby the central stationary members (24) positioned inboard of and offset from the rectangular assembly (12,14). Similarly as claimed, a pair of "outboard" movable members (40,42) are coupled to the longitudinally extending members (14) via the support brackets (16,

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36) and are likewise positioned inboard of and offset from the rectangular assembly (12, 14).



The Garbin reference is silent regarding the particular requirement wherein the longitudinally extending members and transversely extending tubular members should present a tubular form which is generally square shaped in cross section. Reese teaches the construction of a lightweight glass bending mold having low thermal inertia. A detailed application of the immediate reference to the elements of Claim 1 follows with particular reference to Reese Figures 1 and 2 (see below).



Reese specifically teaches the construction of a bending ring (Figure 1) having a horizontally disposed mold reinforcing frame (18) (column 7, Lines 10-11) which is held equivalent in the present claim as a "generally rectangular assembly". Said rectangular assembly consists of a pair of longitudinally extending members and a pair of transversely extending members. Further, said mold reinforcing frame is composed of generally square-shaped cross-section, tubular members as clearly set forth in Figure 2 (18).

Reese clearly teaches that it is known in the art of glass bending molds to construct a generally rectangular assembly as a reinforcing frame wherein the constituent longitudinally and transversely extending members utilize a generally square, tubular cross section. One having an ordinary level of skill in the art would generally recognize the Reese tubular construction as more robust than the "angle iron runners" utilized in the Garbin mold. With these analogous prior art teaching in hand, it would have been a merely obvious extension over the prior art to substitute the angle

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iron runners in the Garbin mold with extending members having a generally square tubular cross section as taught by Reese. Such a substitution would have been an obvious approach to enhance the physical durability of the Garbin mold.

It is further the Examiners express position, absent any compelling and unexpected results to the contrary, that it would be well within the prevue of one of ordinary skill who was aware of the Reese and Garbin teachings to provide an appropriate mounting of the support brackets (16,36) to the generally square, tubular extending members in the Garbin-Reese mold.

Applicants newly submitted amendments require "a pair of cross support tubular members being generally square-shaped in cross section" which are fixedly coupled to an intermediate portion of the longitudinally extending members. The new limitations further require that "the plurality of support brackets" be separate from the pair of support tubular members wherein each of the support brackets extend inward toward, but do not contact, the other longitudinally extending tubular member..

With this point in mind and considering Figure 2 from the Garbin reference, the prior art teaches a rectangular assembly (12,14) comprising support brackets (16 and 36) wherein element (16) acts as a cross support member which is fixedly coupled to longitudinally extending members (14). Garbin further teaches a plurality of support brackets (48) which are attached to a longitudinally extending member (14) and which extend inward towards but do not contact the opposite longitudinally extending member.

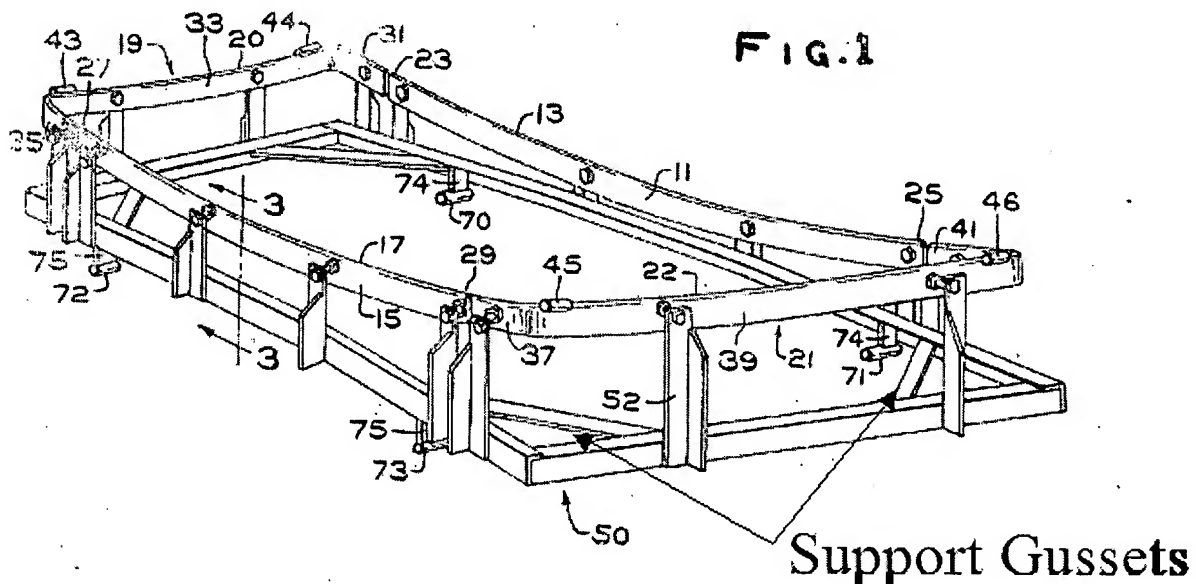
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The instant reference is silent regarding the particular claimed structure comprising a plurality of support brackets that are "separate" from the pair of cross support members.

Applicants own specification acknowledges that "Conventional bending rings used to support these glass sheets...are typically arranged in a rectangular pattern and include a plurality of cross members to reinforce the bending ring geometry" (page 2, ¶ [0006]). In view of Applicants admission of conventional support structures, it is the Examiners position that the addition of a pair of additional cross bar support members which are separate from the support brackets would have presented a merely trivial and obvious extension over the prior art teachings. Additional cross members would have been an obvious addition to the rectangular assembly for anyone seeking to reinforce the bending ring geometry (also see Calevro reference US 4,077,792 cited in Conclusion section below).

Further the prior art teaches the use brackets which extend across the entire span between adjacent longitudinally extending members as in the case of element (16) as well as brackets which merely extend inward towards but do not contact the opposing member as in brackets (48). In view of the fact that both types of support brackets are known in the art, it is the Examiners express position that one of ordinary skill in the art would have been able to select an appropriate support bracket arrangement for the central stationary members and the outboard movable members. Therefore, absent any compelling and substantially unexpected results to the contrary, Applicants support bracket configuration is deemed patentably indistinguishable over that presented in the prior art references.

Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garbin (US 3,265,489) and Reese (4,375,978) in view of DeAngelis (4,119,428). As described above, Reese and Garbin render all of the elements of Claim 1 and 4 obvious without explicitly setting forth the case wherein a gusset is fixedly coupled between the longitudinal and traverse extending tubular member of the "generally rectangular assembly" as indicated in the immediate claim. DeAngelis describes a mold for the gravity bending of glass which includes a reinforcing frame (50) as depicted below.



DeAngelis incorporates a support gusset (indicated by arrows) spanning adjacent extending members which collectively define said reinforcing frame. It would be obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of DeAngelis to modify the mold reinforcing frame as set forth by Garbin and

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Reese above by fixedly coupling gussets between adjacent tubular members.

Examiner here asserts that said gussets may reasonably assume any cross section that would provide adequate structural support to the reinforcing frame without departing from the scope of protection under the prior art. Therefore, the inclusion of a gusset or a "square-shaped tubular gusset" would have been an obvious route to increase the structural durability and rigidity of said reinforcing frame.

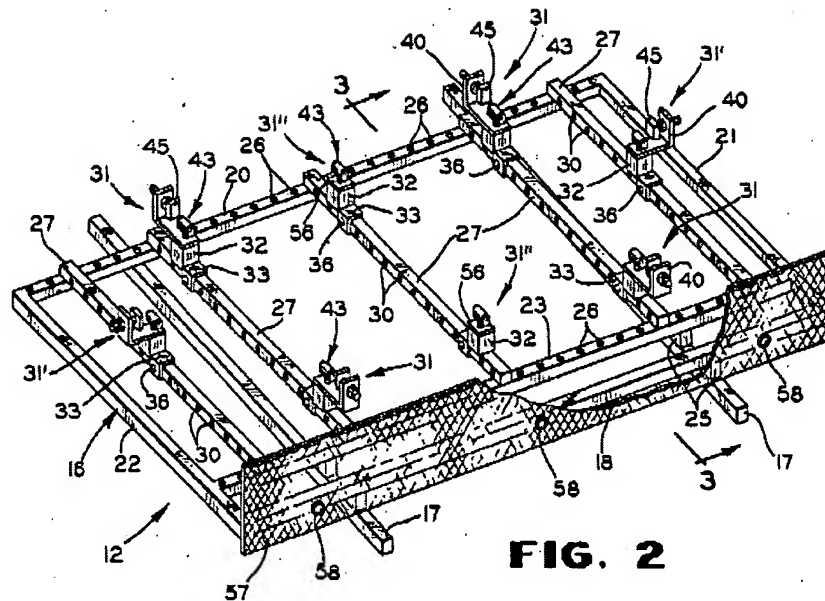
Claim 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garbin (US 3,265,489) and Reese (4,375,978) in view of Black (3,248,201). As described above, Garbin and Reese render all of the elements of Claim 1 obvious, and specifically Reese indicates (Column1, lines 24-26) that the reinforcing frame (18) is composed of square tubing one inch by one inch having a wall thickness of 1/16 in. Although Reese indicates (Column2, Lines 51-57) that the shaping rail (10) is stainless steel, no indication is made regarding the materials of construction for the reinforcing frame. In a description of a glass bending ring, Black indicates that stainless steel is a preferable material due to its resistance to warping at the temperatures at which glass is bent (Column 3, Lines 3-10). It would have therefore been obvious to one of ordinary skill in the art at the time of the invention to utilize stainless steel as a preferred material during the construction of the reinforcing frame as taught by Reese in order to avoid warping of said frame at glass bending temperatures.

Response to Arguments

Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The United States patent to Calevro et. al. (US 4,077,792) teaches a glass support rack comprising longitudinally extending members (20, 23) and transversely extending members (22,21) which define a rectangular assembly. Cross bar support members (17) are fixedly coupled to an intermediate section of the longitudinally extending members and are separate from the support brackets (27). Although it is the Examiners position that Applicants designated arrangement of cross bar support members and support brackets is prima facie obvious over the prior art of record, the instant reference to Calevro provides further evidence of conventional support structures with the claimed support arrangement. The instant reference is understood to be applicable under 35 USC 103(a) and any response to the instant Office Action should carefully consider the scope and content of the Calevro disclosure.



Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason L. Lazorcik whose telephone number is (571) 272-2217. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1189.


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